

*PROMPTING PATRON SAFETY BELT  
USE AT A RESTAURANT*

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A reversal (ABABAB) design was used to assess the effects of a verbal prompt on safety belt use of restaurant patrons. A verbal prompt delivered by employees at the exit door resulted in an average increase of 20% in safety belt use by drivers leaving the restaurant. A previous study provided this type of antecedent immediately before supermarket patrons entered their vehicles. This effort demonstrates the effects of a verbal prompt with greater latency between the prompt and target response.

DESCRIPTORS: safety belt, community safety, prompting

Deficient safety belt use continues to cost society and individuals money and to cause injuries. It is estimated that in 1995, traffic crashes cost government, businesses, and individuals \$150 billion in medical and enforcement costs and lost productivity. On average, it costs society \$5,000 more to treat an unbelted driver after an auto accident (Fix, 1997). These costs and injuries could be decreased using the techniques of applied behavior analysis.

Verbal prompts have been demonstrated to be a cost-effective way to substantially increase safety belt use (Engerman, Austin, & Bailey, 1997; Geller, Johnson, & Pelton, 1982). Engerman et al. (1997) had grocery carriers deliver a verbal prompt to patrons just before they entered their vehicles. That intervention, built within the store's existing practices, resulted in a 12% increase in safety belt use. In this study, we assessed the effects of a prompt delivered at a restaurant, where hostesses prompted patrons as they exited the building. In contrast to the methods of Engerman et al., the person who delivered the prompt was not physically present at the

side of the vehicle, but remained inside the building.

## METHOD

### *Participants and Setting*

The setting was a Michigan branch of a national chain of restaurants where hostesses regularly said "good-bye" and opened the door for exiting patrons. Participants were restaurant patrons who left the parking lot through the south exit. Ten female hostesses (ages 17 to 25) agreed to participate in the study. The state has a mandatory safety belt law.

### *Response Definitions*

An occurrence of safety belt use was recorded when a shoulder strap was visible over the driver's shoulder. An occurrence of the verbal prompt was recorded each time the hostess added, "Don't forget to buckle up," to their customary farewell remarks to exiting patrons.

### *Observation Procedures and Data Collection*

Observers of safety belt use were the second and third authors and 12 trained students. During 1 hr of training, students were given recording forms and a list of response definitions. Observations were made from parked vehicles near the south exit of the

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restaurant parking lot. In general, two consecutive 1-hr sessions were conducted each evening on Thursdays, Fridays, Saturdays, and Sundays. Changes from baseline to intervention conditions always occurred between 1-hr sessions on the same evening. A total of 1,250 observations occurred during 50 sessions over 32 days (session  $M = 24$ ; range, 10 to 59).

Percentage of safety belt use was calculated by dividing the number of occurrences by the total number of drivers and multiplying by 100%. An independent observer collected reliability data on safety belt use for 20% of the sessions. Interobserver agreement for both safety belt use and prompt delivery was calculated by dividing the number of agreements by the number of agreements plus disagreements and multiplying by 100%. Agreement for safety belt use averaged 97% (range, 89% to 100%).

At the beginning of each intervention session, the observer met briefly with hostesses assigned to the lobby and reminded them to prompt patron safety belt use. A total of 417 parties were observed leaving the restaurant during 14 sessions over 9 days (session  $M = 30$ ; range, 13 to 46). The second and third authors and a trained graduate student observed the verbal prompt by standing inside the restaurant lobby and posing as patrons. Data sheets were concealed and marks were made immediately after patrons exited. An independent observer collected reliability data for the delivery of the verbal prompt during 20% of the sessions. Agreement for the delivery of the prompt averaged 92% (range, 89.2% to 95%). During the three intervention phases, hostesses prompted 83%, 80%, and 77% of parties leaving the restaurant. Informal observation indicated that heavy patron traffic in and out of the restaurant often required the employee working at the door to perform duties that were incompatible with providing the prompt.

### *Experimental Design and Conditions*

A reversal (ABABAB) design was used to assess the effects of the verbal prompt on safety belt use by restaurant patrons. During baseline conditions (A), all drivers who exited the restaurant parking lot through the south exit were observed unobtrusively for safety belt use. During intervention phases (B), hostesses provided the verbal prompt to patrons exiting the building, and all drivers exiting the restaurant parking lot through the south exit were observed unobtrusively for safety belt use.

## RESULTS AND DISCUSSION

Overall, safety belt use was 57% during baseline conditions and 77% during prompting conditions. Figure 1 shows that during the initial baseline condition, 55% (range, 39% to 83%) of drivers wore a safety belt as they exited. During the initial verbal prompt condition, 73% (range, 65% to 83%) of drivers wore their safety belts. The first return to baseline resulted in a decrease in safety belt use to 57% (range, 53% to 62%). During the second verbal prompt condition, safety belt use averaged 78% (range, 61% to 100%). The second return to baseline resulted in an average safety belt use of 62% (range, 45% to 75%). The final verbal prompt condition resulted in an average of 79% (range, 76% to 82%) safety belt use.

The results suggest a verbal prompt from a restaurant hostess can increase the safety belt use of patrons leaving that restaurant. The latency between prompt and safety belt use was in the range of minutes rather than seconds, as in the Engerman *et al.* (1997) study. The effects suggest that prompts can be effective even when they do not immediately precede target behavior. Future research should better examine the critical latencies between prompting and behavior.

We did not collect reliable data on

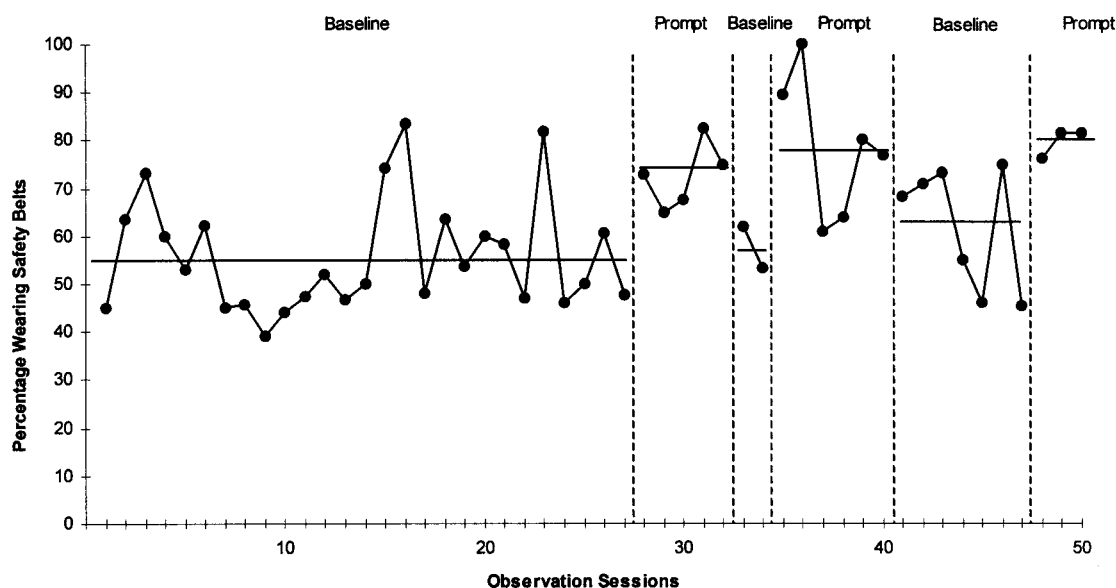


Figure 1. The percentage of patrons wearing safety belts across baseline and verbal prompt phases.

prompting during baseline conditions. However, informal observation and manager reports collected before the start of the study indicated that hostesses rarely made any farewell remarks to patrons and never prompted exiting patrons to wear safety belts. In addition, because the prompt occurred inside the establishment (as opposed to prompting in the parking lot, as in the Engerman et al., 1997, study), it was not practical to collect data on the correspondence between prompting and actual safety belt use for individual patrons. Future research should develop procedures to identify the individuals who receive prompts and those who do not, but this must be weighed against the merits of larger scale interventions in which individual identification becomes more difficult.

The manager of the restaurant was convinced by the effects and found that the prompting intervention increased the number of patrons who received a personal goodbye from hostesses. Most organizations can easily incorporate the delivery of a verbal

prompt for safety belt use into their current practices. A community with many businesses participating in a verbal prompt campaign might be able to substantially increase the overall percentage of citizens who wear safety belts, and decrease injuries and their associated costs to consumers and society in general. Such larger scale community applications can be guided by behavioral principles and evaluated by behavioral methods.

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